

Notice of Allowability	Application No.	Applicant(s)	
	10/695,292	CHEN ET AL.	
	Examiner	Art Unit	
	Jerry T. Rahl	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application received 28 October 2003.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☒ The drawings filed on 28 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>2/18/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |


AKM ENAYET ULLAH
PRIMARY EXAMINER

Jerry T Rahl

DETAILED ACTION

Drawings

1. The drawings submitted have been reviewed and determined to facilitate understanding of the invention. The drawings are accepted as submitted.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 18 February 2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
4. The application has been amended as follows:

"1. A multiplexer with a DWDM function mainly being comprised of a first module and a second module, an optic fiber being linked between said first module and said second module, a total reflection mirror being configured within each of the first module and the second module, a plurality of parallel filters being provided under each total reflection mirror, a first lens separately corresponding to an adequate angle of inclination under each of the filters, an inclined slab being separately spaced at intervals under each of the first lenses, a laser diode being separately provided under each of the inclined slabs, a receiver being provided

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between two of the laser diodes, an optic detector being provided near each of the laser diodes;

at a fit place of a reflection terminal is provided a total reflection mirror, a plurality of reflection interfaces being provided to receive the total reflection number, and at a side of the reflection interfaces, a second lens corresponding to said reflection interfaces being provided to focus a reflected light and then to transmit it to the optic fiber.”

5. This amendment is believed to retain all of the limitations of the claim as originally submitted and is meant only to fix minor informalities relating to grammatical form.

Allowable Subject Matter

6. The following is an examiner’s statement of reasons for allowance. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

7. Claims 1-2 are allowed. Claims 1-2 describe a multiplexer with a DWDM function mainly being comprised of a first module and a second module, an optic fiber being linked between said first module and said second module, a total reflection mirror being configured within each of the first module and the second module, a plurality of parallel filters being provided under each total reflection mirror, a first lens separately corresponding to an adequate angle of inclination under each of the filters, an inclined slab being separately spaced at intervals under each of the first lenses, a laser diode being separately provided under each of the inclined slabs, a receiver being provided between two of the laser diodes, an optic detector being

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provided near each of the laser diodes, at a fit place of a reflection terminal is provided a total reflection mirror, a plurality of reflection interfaces being provided to receive the total reflection number, and at a side of the reflection interfaces, a second lens corresponding to said reflection interfaces being provided to focus a reflected light and then to transmit it to the optic fiber.

8. U.S. Patent No. 6,870,976 to Chen et al describes a multiplexer module (200) linked to an optic fiber (221), a total reflection mirror (216) configured in the module, a plurality of parallel filters (217) being provided under the total reflection mirror, a first lens (207-210) separately corresponding to an adequate angle of inclination under each of the filters, a laser diode (211-214) being separately provided under each of the first lenses, at a fit place (222) of a reflection terminal is provided a total reflection mirror, a plurality of reflection interfaces (331-332) being provided to receive the total reflection number, and at a side of the reflection interfaces, a second lens (206) corresponding to said reflection interfaces being provided to focus a reflected light and then to transmit it to the optic fiber. Chen et al. does not describe inclined slabs being separately spaced at intervals under each of the first lenses with an optical detectors being provided near each of the laser diodes. Further, Chen et al. does not describe a receiver being provided between two of the laser diodes. (see Figures 2-5A and Columns 4-9).

9. U.S. Patent No. 6,870,976 to Chen et al. remains the closest prior art of record in this application. For the reasons stated above, however, Claims 1-2 herein are deemed to patentably distinguish over Chen et al. and all other prior art of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents Nos. 6,399,978 to Grann and 6,198,864 to Lemoff et al. describe

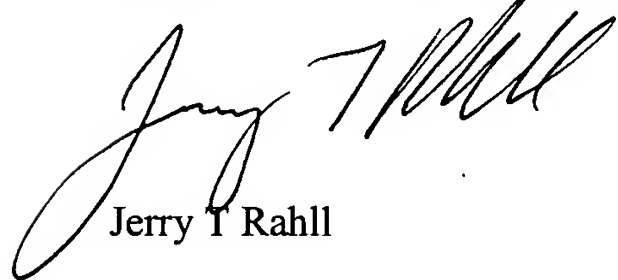
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optical multiplexing modules. U.S. Patent No. 6,636,540 to Uebbing describes an optical device with a detector near a laser diode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T. Rahll whose telephone number is (571) 272-2356. The examiner can normally be reached on M-Th (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry T. Rahll



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